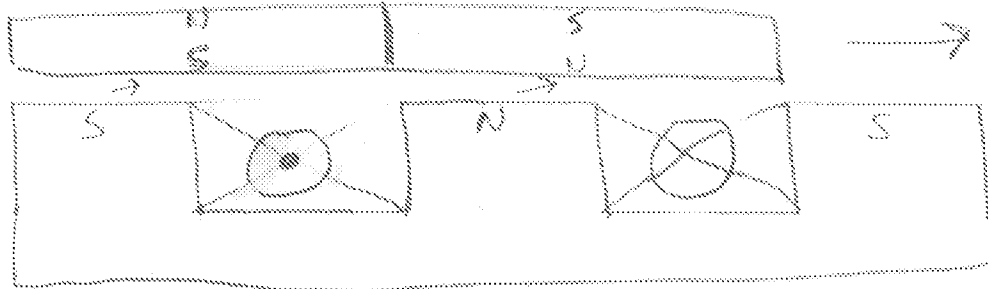
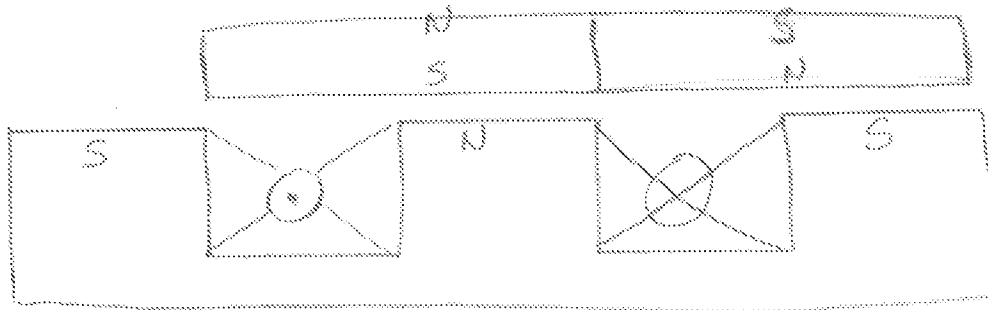


beginning of stroke

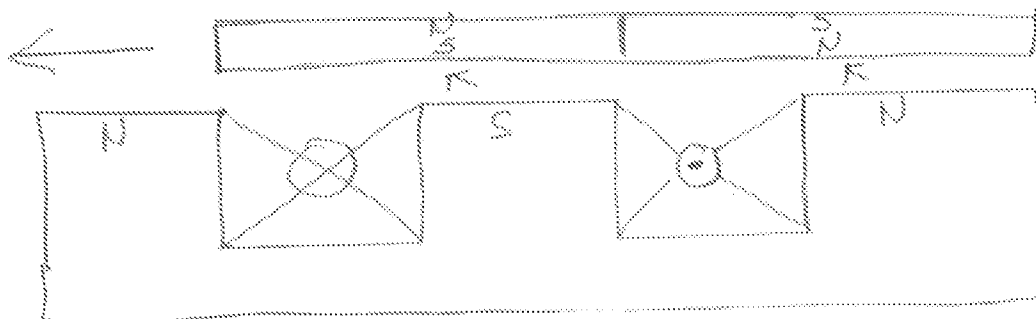


axial  
net force  
to right

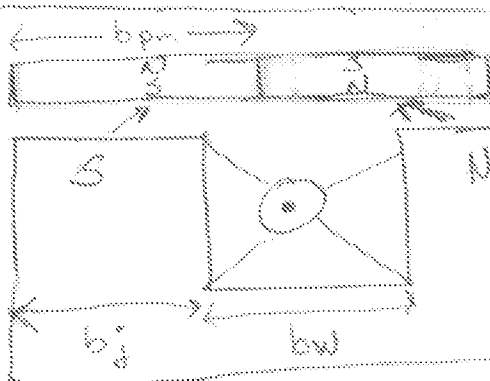
end of stroke



beginning of stroke



axial  
net force  
to left



axial  
net force  
 $= 0$

permanent magnet width (bpm)  
less than  $b_g + bw$